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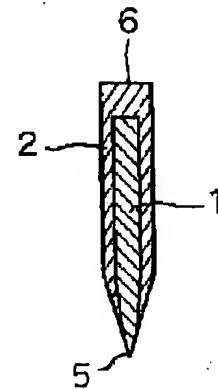
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APPLICANT : KYOCERA CORP;

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TITLE : SINTERED ZIRCONIA, ITS
PRODUCTION AND EDGED TOOL



ABSTRACT : PROBLEM TO BE SOLVED: To improve the water-resistance and increase the strength of a sintered zirconia by coating the surface of a partially stabilized sintered zirconia with an alumina layer.

SOLUTION: The objective sintered zirconia coated with an alumina layer is produced by applying a paste for forming an alumina layer or laminating an alumina-forming green sheet to a prescribed surface of a molded article composed of zirconia containing 2-15mol% of at least one kind of stabilizer selected from MgO, CaO and an oxide of a group 3a element of the periodic table such as Y_2O_3 or CeO_2 and baking the paste and the zirconia at the same time at 1,300-1,700°C. The sintered zirconia is suitable for an edged tool produced by coating the sintered zirconia 1 with an alumina layer 2 of $\geq 10\mu m$ thick excluding the edge part 5 to improve the water-resistance and the strength of the edged tool.

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